Asymmetric effects of wellness destination and wellness facility attributes on tourist satisfaction

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Abstract

Purpose – This study aims to provide insight into the determinants of wellness tourism satisfaction, thereby taking a nonlinear approach regarding the relationships between attribute-level performance of wellness facility attributes, on the one hand, and wellness destination attributes, on the other hand, and global wellness tourist satisfaction. In addition, scores of impact range are calculated to reveal the potentially most determinant wellness facility and destination attributes.

Design/methodology/approach – This study uses data from a survey-based study conducted among 1,331 wellness tourists who have engaged in wellness tourism activities at one of 28 hotels with wellness offerings and 10 spas in Croatia. Impact-asymmetry analysis and impact-range analysis are used to quantify the potential of individual wellness attributes to generate satisfaction and dissatisfaction among wellness tourists and to perform a classification of wellness attributes according to the three-factor theory of customer satisfaction.

Findings – Operators of wellness tourism facilities, as well as managers of wellness destinations, must not make any compromises in quality levels because most wellness attributes have significantly higher potential to frustrate than please tourists. Basic factors such as cleanliness, punctuality or safety turned out to have the strongest influence on global satisfaction levels. Moreover, in line with previous research, wellness tourists have large expectations from destinations to have a preserved and beautiful nature, which is by far the most influential destination attribute. In addition to a safe environment and high-quality accommodation, wellness tourists further prefer rich cultural offerings.

Originality/value – To the best of the authors' knowledge, this is the first study to apply a nonlinear analysis approach to the quality–satisfaction relationship in a wellness tourism setting. Moreover, to the knowledge of the authors, this is the only study that used separate attribute models for wellness facilities, on the one hand, and wellness destinations, on the other hand, based on a nation-wide sample that covers multiple cases (i.e. multiple facilities and destinations).

Keywords Croatia, Kano model, Wellness tourism, Dummy regression, Three-factor theory, Impact asymmetry, Impact range, Wellness tourist satisfaction, Penalty-reward contrast analysis

Paper type Research paper

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养生目的地和养生设施属性对游客满意度的不对称影响

摘要

目的: 本研究旨在深入了解养生旅游满意度的决定因素, 从而采用非线性方法来研究（i）养生设施属性和（ii）养生目的地属性对国际养生游客满意度的关系。此外, 本文还计算了影响范围的分数, 以揭示潜在的最具决定性的养生设施和目的地属性。

设计/方法/途径: 本研究使用了基于对 1,331 名养生游客进行调查问卷的数据, 这些游客曾在克罗地亚 28 的酒店以及 10 个水疗中心进行了养生旅游活动。本文采用影响不对称分析（IAA）和影响范围分析（IRA）来量化个体养生属性在健康游客中产生满意和不满意的潜力, 并根据顾客三因素满意度理论对健康属性进行分类。

调查结果: 养生旅游设施的运营商以及养生目的地的管理者不能在质量水平上做出任何妥协, 因为大多数养生属性很可能使游客感到沮丧, 而不是取悦游客。事实证明, 清洁、准时及安全等基本因素对全球满意度影响最大。此外, 根据之前的研究, 健康游客对目的地抱有很大的期望, 希望拥有保存完好且美丽的自然风光, 这是最具影响力的目的地属性。除了安全的环境和高品质的住宿外, 养生游客更看重丰富的文化产品。

独创性：这是第一项将非线性分析方法应用于养生旅游环境中的质量与满意度关系的研究。此外，据作者所知，这是唯一一项基于涵盖多个案例（即多个设施及目的地）的国家样本，一方面对养生设施使用单独的属性模型，另一方面对养生目的地使用单独的属性模型的研究。

关键词 养生旅游 影响不对称，影响范围，养生旅游满意度，三因素理论，卡诺模型

文章类型 研究型论文

Efectos asimétricos de los atributos de los destinos de bienestar y las instalaciones de bienestar en la satisfacción del turista

Resumen

Propósito: *Este estudio tiene como objetivo proporcionar información sobre los determinantes de la satisfacción del turismo de bienestar, adoptando así un enfoque no lineal con respecto a las relaciones entre el rendimiento a nivel de atributos de (i) atributos de instalaciones de bienestar, por un lado, y (ii) atributos de destino de bienestar, por otro lado, y la satisfacción del turista de bienestar global. Además, se calculan puntajes de rango de impacto para revelar las instalaciones de bienestar y los atributos de destino potencialmente más determinantes.*

Diseño/metodología/enfoque: *este estudio utiliza datos de un estudio basado en encuestas realizado entre 1,331 turistas de bienestar que participaron en actividades de turismo de bienestar en uno de los 28 hoteles con ofertas de bienestar y diez spas en Croacia. El análisis de asimetría de impacto (IAA) y el análisis de rango de impacto (IRA) se utilizan para cuantificar el potencial de los atributos de bienestar individuales para generar satisfacción e insatisfacción entre los turistas de bienestar y para realizar una clasificación de los atributos de bienestar de acuerdo con la teoría de los tres factores del cliente. satisfacción.*

Hallazgos: *Los operadores de instalaciones de turismo de bienestar, así como los administradores de destinos de bienestar, no deben comprometer los niveles de calidad porque la mayoría de los atributos de bienestar tienen un potencial significativamente mayor para frustrar que para complacer a los turistas. Los factores básicos, como la limpieza, la puntualidad o la seguridad, resultaron ser los que más influyeron en los niveles de satisfacción global. En consecuencia, estos atributos no deben verse como fuentes potenciales de satisfacción y deleite del cliente, sino que deben otorgarse altos niveles de desempeño para evitar una fuerte insatisfacción. Además, en línea con investigaciones anteriores, los turistas de bienestar tienen grandes expectativas de que los destinos tengan una naturaleza preservada y hermosa, que es, con mucho, el atributo de destino más influyente. Además de un entorno seguro y un alojamiento de alta calidad, los turistas de bienestar prefieren una rica oferta cultural. Aplicando la teoría de los tres factores, una visión más matizada de la formación de la satisfacción del turista de bienestar mostró que estos atributos del destino tienen un potencial mucho mayor para crear una fuerte insatisfacción que satisfacción.*

Originalidad: *Este es el primer estudio que aplica un enfoque de análisis no lineal a la relación calidad-satisfacción en un entorno de turismo de bienestar. Además, según el conocimiento de los autores, este es el único estudio que utilizó modelos de atributos separados para instalaciones de bienestar, por un lado, y destinos de bienestar, por el otro, en base a una muestra nacional que cubre múltiples casos (es decir, múltiples instalaciones y destinos).*

Palabras clave *Turismo de bienestar, Impacto-asimetría, Rango de impacto, Bienestar satisfacción del turista, Teoría de los tres factores, Modelo Kano*

Tipo de papel *Trabajo de investigación*

Introduction

Wellness tourism, which is related to medical tourism and is part of the wider health tourism concept, is a rapidly growing segment of the global tourism industry (Dini and Pencarelli, 2021). It involves travelers seeking out destinations that offer medical treatments, fitness programs and other wellness-related activities and services that promote physical and mental well-being (Kazakov and Oyner, 2021).

Wellness tourism has grown significantly in recent years. According to the Global Wellness Institute (GWI), the wellness tourism market was estimated to be worth \$639bn in 2017, and it predicts that it will reach \$919bn in 2022 [Global Wellness Institute (GWI), 2018]. This growth can be attributed to several factors, including increasing awareness of the importance of health and wellness among travelers, an increasing prevalence of chronic diseases and the availability of a wide range of wellness experiences and destinations nowadays. Even the medical literature acknowledges the positive effects of wellness on

tourists' well-being (Cohen *et al.*, 2017). Thus, wellness tourism is particularly beneficial for the elder traveler segment with the potential to improve their life satisfaction (Chen *et al.*, 2013a, 2013b; Chen *et al.*, 2013a, 2013b; Kan *et al.*, 2022). However, with the growing general awareness of the importance of maintaining good mental and physical health, prospective tourists interested in wellness offerings cover a wide range of age groups and traveler segments, e.g. individuals or couples interested in hedonic experiences, athletes and even "average travelers."

Following the calls for further research on the determinants of positive and negative wellness tourism experiences by Medina-Muñoz and Medina-Muñoz (2014), Albayrak *et al.* (2017) and Rodrigues *et al.* (2020), the present study seeks to provide insight from a propulsive Mediterranean tourism destination, i.e. Croatia, that has so far not been covered by studies focusing on wellness tourism experiences. In doing so, a separate focus is being given to wellness destination attributes, on the one hand, and wellness facility attributes, on the other hand. Moreover, the present study is the first to investigate the influence of individual wellness facility and destination attributes on tourist satisfaction through the lens of the three-factor theory of customer satisfaction (Füller and Matzler, 2008). According to this theory, individual attributes do not necessarily influence overall tourist satisfaction linearly, as usually assumed in tourist satisfaction studies, but rather the relationship between attribute-level performance and overall tourist satisfaction might as well be nonlinear and asymmetric, leading to a classification of attributes into hybrid attributes, satisfiers and dissatisfiers. To perform the classification of wellness facility and destination attributes according to the three-factor theory and to assess their overall potential to impact overall tourist satisfaction, this study applies a relatively novel analysis approach, i.e. impact-asymmetry analysis (IAA) and impact-range analysis (IRA; Mikulić and Prebežac, 2008; Fakfare and Wattanacharoensil, 2022).

The remainder of the article is structured as follows. The following section reviews extant studies centered on the concept of wellness tourism satisfaction. This is followed by a brief introduction of the theoretical framework used underlying the analysis and a detailed explanation of the study methodology and analytical approach. Finally, after presenting key study results, the article concludes by outlining the most important implications for theory and practice and pointing to potential areas for further research.

Wellness tourism satisfaction

In line with the growing economic significance of wellness tourism, research on demand-side characteristics has somewhat intensified in recent years. Most importantly, to become and/or remain competitive in the market, it is important to understand which factors contribute to positive and negative wellness tourism experiences on the antecedent side of tourist loyalty (González and Brea, 2005; Han *et al.*, 2017, 2018). Surprisingly, however, the number of available studies that take an attribute-based service- or experiencescape perspective on wellness facilities and destinations to identify critical sources of tourist satisfaction (and dissatisfaction) is still rather limited (Buxton and Michopoulou, 2021; Chen *et al.*, 2023; Sthapit *et al.*, 2023). Among the few published studies on wellness tourism experiences, extant research has so far focused on the determinants of wellness tourism satisfaction, with an accent on either wellness tourism facilities (Albayrak *et al.*, 2017; Rodrigues *et al.*, 2020) or using a mix of destination and facility attributes (Medina-Muñoz and Medina-Muñoz, 2014; Forlani *et al.*, 2022; Chen *et al.*, 2023).

For example, Medina-Muñoz and Medina-Muñoz (2014) performed an importance-performance analysis to identify critical wellness tourism attributes at the destination level using the case of Gran Canaria. According to these authors, the most important attributes were the natural-based aspects of the destination, the relaxing environment of the hotel, personalized service differentiation, price levels and attractiveness levels of wellness treatments and centers. The authors call for further research in other wellness destination

settings and the potential inclusion of other relevant wellness destination attributes that may emerge or apply to other research settings. Set within an upscale hotel setting in Antalya, Albayrak *et al.* (2017) used an adapted SERVQUAL model to measure spa and wellness service quality. Again, the authors call for further research in other destination contexts and also consider other modeling frameworks for analyzing wellness tourism experiences.

A somewhat different approach has been taken by Rodrigues *et al.* (2020), who used sentiment analysis to identify critical elements of spa visitor satisfaction. Using a text-mining approach to online reviews posted by spa visitors, the authors yielded a classification of wellness attributes into key sources of satisfaction and dissatisfaction. This approach provides very valuable insight into the most salient attributes of wellness tourist experiences. To obtain a more reliable as well as more detailed and comprehensive picture, however, active control over the wellness tourism attributes and the sample should be granted using a survey-based design. Similarly, using a netnographic approach, Forlani *et al.* (2022) focused on the particular relevance of food and beverage (F&B) in wellness tourism experiences and found F&B to be supporting the wellness experience, especially in a hedonic rather than eudaimonic way.

Moreover, because not a single study has so far focused explicitly on destination attributes and their contribution to satisfaction and dissatisfaction among the wellness tourist segment, it would be worthwhile to extend studies of wellness tourist experiences beyond the scope of the facilities. The rationale for such an analysis approach is reflected in the fact that wellness tourists likely do not only reside in their hotels or other facilities but also engage with the wider destination offer while on vacation. In this regard, the competitiveness of wellness facilities is linked to the quality of the destinations where they are situated, meaning that it is also vital for wellness facility operators to identify critical sources of satisfaction and dissatisfaction when wellness tourists leave their facilities.

Theoretical framework

To identify potential asymmetric effects in the creation of global customer judgments (i.e. overall satisfaction or experience), i.e. to separately estimate satisfaction- and dissatisfaction-generating potentials (SGPs) of individual attributes, several studies depart from the three-factor theory of customer satisfaction, which has its roots in the motivator-hygiene theory from the organizational research area (Herzberg *et al.*, 1959), and the Kano model of attractive quality (Kano *et al.*, 1984), which was originally introduced in the manufacturing-focused quality management literature.

The theory's key postulate is that the performance of individual product/service/destination attributes is not necessarily related linearly to global satisfaction as usually assumed in customer satisfaction research, but rather that this relationship may be nonlinear and asymmetric depending on the attributes' levels of performance (Mikulić and Prebežac, 2011). By assuming such potential level effects, the three-factor theory distinguishes between three different categories of product/service features depending on the shape of the feature's impact on global customer evaluations, i.e. satisfiers (attributes with larger SGPs than dissatisfaction-generating potentials [DGPs]), hybrids (balanced SGP and DGP) and dissatisfiers (larger DGP than SGP). In this regard, a classification based on the three-factor theory provides a much more nuanced and manageable picture of the creation of overall tourist satisfaction than linear analysis approaches.

To test or explore the possible three-factor structure of customer satisfaction, relevant studies frequently use IAA (Mikulić and Prebežac, 2008), which is based on a multiple regression analysis with dummy variables, also known as the penalty-reward contrast approach (Brandt, 1987). In addition to exploring potential asymmetrical effects, respective studies also use IRA to obtain an ordering of attributes based on the total of their SGP and DGP as an alternative measure of determinance or implicit importance compared to traditional regression- or correlation-based estimates.

Within the travel and tourism domain, studies have so far used IAA and IRA in the context of, e.g. food attributes (Back, 2012), casino tourism (Back and Lee, 2015), hiking tourism (Oh *et al.*, 2019), gastronomic tourism experiences (Pratt *et al.*, 2020) or, most recently, online learning (Li and Agyeiwaah, 2022), among others.

Methodology

Population, sample and data collection

To perform an analysis of impact asymmetry and impact range for wellness destination and wellness facility attributes, the present study used data that were collected as part of a study carried out by the Institute for Tourism in cooperation with a specialized market research firm.

The study population encompassed national and foreign tourists and one-day visitors who have used wellness tourism services in Croatia during the period from July to December 2018. Overall, the data for the present study encompassed 1,331 respondents who have engaged in wellness tourism activities, covering 28 hotels with larger wellness centers and ten spas in Croatia. A quota sampling approach was used to ensure that all Croatian regions were represented in the sample. The Croatian National Tourism Board informed all of the sampled facilities about the intention to conduct the study via its regional (county) tourism boards to obtain permissions for the study and enhance the facility operators' responsiveness to cooperate during the on-site data collection process. By using a highly structured questionnaire, the data were collected through computer-aided personal interviews in and around the facilities. The wellness facility and destination attribute lists were obtained through a two-step process. The first step encompassed a systematic review of available scholarly studies with a focus on tourist satisfaction with wellness facility and destination attributes, as well as previous visitor surveys conducted in Croatia. In the second step, the initial item lists were amended through insight from personal interviews with practitioners and researchers in the field of wellness tourism. To avoid potential respondent fatigue, the item lists were finally narrowed down to 15 wellness facility attributes and 11 destination attributes that cover essential aspects of the wellness tourism servicescape at both the facility and destination levels.

Data analysis

The sample characteristics are provided in Table 1.

In line with the IAA and IRA approaches proposed by Mikulić and Prebežac (2008), the respondent ratings for 15 wellness facility attributes and 11 destination attributes were recoded to obtain two sets of dummy variables. Originally, all items were measured on seven-point rating scales ranging from 1 – very poor to 7 – excellent performance. One set was obtained by coding the lowest ratings as one, whereas all other ratings were coded as zero. This set is used to quantify the penalty score, i.e. the negative effect of an attribute on the tourists' global satisfaction level in cases of low attribute performance. The other set was obtained by coding only the highest ratings as one and all other ratings as zero. This set is used to quantify the reward score, i.e. an attribute's impact on global tourist satisfaction in cases of high performance.

The two dummy sets are then regressed against the global satisfaction ratings of the wellness tourists, yielding the penalty and reward scores, respectively. By using the following equation, the levels of impact asymmetry and impact range were then calculated (Mikulić and Prebežac, 2008):

$$GS = b_0 + \sum \left(p_i d_{p,i} + r_i d_{r,i} \right) + e \ldots . \forall i \in I \qquad (1)$$

where GS is global satisfaction, b_0 is the constant, p_i is the incremental change in global satisfaction yielding from *very low* performance of attribute i, $i \epsilon I$ (penalty score),

Table 1 Sample characteristics ($n = 1{,}331$)	
Age	
≤ 25	9%
26–35	22%
36–45	29%
46–55	19%
>55 or more	20%
Gender	
Female	53%
Male	47%
Average monthly household income	
>€3,500	38%
€3,001–€3,500	11%
€2,501–€3,000	12%
€2,001–€2,500	12%
€1,501–€2,000	10%
€1,001–€1,500	8%
€501–€1,000	7%
$\leq$€500	1%
Travel companionship	
Alone	12%
With partner	52%
With family members	26%
With friends	10%
Country of residence	
Croatia	18%
Germany	13%
Slovenia	11%
Austria	9%
Italy	7%
UK	5%
Bosnia and Herzegovina	4%
Serbia	3%
Other European countries	24%
Other non-European countries	6%

Source: Created by the authors

r_i is the incremental change in global satisfaction yielding from *very high* performance of attribute i, $i \epsilon$ I (reward score), $d_{p,i}$ is the dummy variable for attribute $i \epsilon$ I with a value of 1 for lowest performance ratings and a value of 0 for all other ratings, $d_{r,i}$ the dummy variable for attribute i, $i \epsilon$ I with a value of 1 for highest performance ratings and a value of 0 for all other ratings and e is the error term. Following the recommendation by Mikulić and Prebežac (2012), the values of p_i and r_i are unstandardized regression coefficients.

By comparing the values of p_i and r_i, one can detect possible diminishing and increasing returns in global satisfaction based on the level of attribute performance, i.e. the direction of impact asymmetry (ia_i):

■ $|p_i| > r_i$: negative $ia_i \rightarrow$ attribute i has a stronger effect on global satisfaction when attribute-performance levels are low than when they are high. Accordingly, returns in on global satisfaction are diminishing.

■ $|p_i| \approx r_i$: symmetric $ia_i \rightarrow$ attribute i has balanced effects on global satisfaction when attribute-performance levels are low and when they are high. Accordingly, returns in global satisfaction are relatively constant.

- $|p_i| < r_i$: positive $ia_i \rightarrow$ attribute i has a weaker effect on global satisfaction when attribute-performance levels are low than when they are high. Accordingly, returns in global satisfaction are increasing with rising performance.

Finally, attributes are classified into five different categories based on the level of their impact asymmetry (Mikulić and Prebežac, 2011): frustrators (IA ≤ -0.6); dissatisfiers ($-0.6 <$ IA ≤ -0.2); hybrids ($-0.2 <$ IA < 0.2); satisfiers ($0.2 \leq$ IA < 0.6); and delighters (IA ≥ 0.6).

Results

Tables 2 and 3 present the results of the IAA and IRA at the facility and destination levels, respectively. Except for three attributes at the facility level and three at the destination level, all attributes have been classified as dissatisfiers or even frustrators.

Table 2	IAA results at the wellness facility level						
Wellness facility attributes	Penalty (p_i)	Reward (r_i)	RIOGS	DGP (%)	SGP (%)	IAI_i	Class
F1. Availability of information about the wellness offer	−0.171*	0.212**	0.383	−44.73	55.27	0.11	Hybrid
F2. Completeness of information about treatments/ procedures	−0.959**	0.227**	1.185	−80.87	19.13	−0.62	Frustrator
F3. Adequate size of the center (swimming pool, sauna, relaxation zone, etc.)	−0.670**	0.157*	0.827	−81.03	18.97	−0.62	Frustrator
F4. Variety of equipment/contents	−0.221ns	0.132ns	0.353	−62.48	37.52	−0.25	–
F5. Quality of equipment	−0.786**	0.078ns	0.864	−90.93	9.07	−0.82	Frustrator
F6. Cleanliness	−1.712**	0.009ns	1.720	−99.49	0.51	−0.99	Frustrator
F7. Atmosphere	−0.181*	0.225*	0.406	−44.67	55.33	0.11	Hybrid
F8. Diversity of services/treatments offered	−0.256ns	0.115ns	0.371	−68.90	31.10	−0.38	–
F9. Quality of individual services and/or programs	0.011ns	0.148*	0.138	7.77	107.77	1.16	delighter
F10. Innovativeness of offerings	−0.165*	0.014ns	0.179	−92.22	7.78	−0.84	frustrator
FI11. Adaptation of the center to people with special needs	−0.125ns	0.058ns	0.184	−68.28	31.72	−0.37	–
F12. Staff professionalism	−0.352	0.003ns	0.356	−99.12	0.88	−0.98	frustrator
F13. Staff politeness	−0.947**	0.209**	1.155	−81.95	18.05	−0.64	frustrator
F14. Punctuality of appointments	−1.195**	0.425**	1.620	−73.78	26.22	−0.48	dissatisfier

Notes: Reward and penalty scores are unstandardized regression coefficients; dependent variable: global satisfaction with the wellness facility; **$p < 0.01$; *$p < 0.1$; ns not significant; $R^2 = 0.609$
Source: Created by the authors

Table 3	IAA results at the wellness destination level						
Wellness destination attributes	Penalty (p_i)	Reward (r_i)	RIOGS	DGP (%)	SGP (%)	IAI_i	Class
D1. Beauty of nature and scenery	−1.122**	0.300**	1.423	−78.90	21.10	−0.58	Frustrator
D2. Feeling of personal safety	−0.770**	0.220**	0.990	−77.75	22.25	−0.56	Frustrator
D3. Atmosphere	−0.077ns	0.238**	0.315	−24.45	75.55	0.51	Delighter
D4. Transport accessibility	−0.230*	0.004ns	0.234	−98.28	1.72	−0.97	Frustrator
D5. Hospitality of locals	−0.257*	0.078ns	0.336	−76.64	23.36	−0.53	Frustrator
D6. Accommodation quality	−0.571*	0.265**	0.836	−68.31	31.69	−0.37	Dissatisfier
D7. Quality of restaurants, cafes and bars	−0.203*	0.291**	0.494	−41.04	58.96	0.18	Hybrid
D8. Cultural offerings quality	−0.458**	0.083*	0.541	−84.70	15.30	−0.69	Frustrator
D9. Recreational opportunities	−0.035ns	0.070ns	0.105	−33.64	66.36	0.33	–
D10. Quality of local transportation	0.071ns	−0.033ns	−0.105	−68.20	31.80	−0.36	–
D11. Informational quality in the destination	−0.251*	0.189**	0.441	−57.02	42.98	−0.14	Hybrid

Notes: Reward and penalty scores are unstandardized regression coefficients; dependent variable: global satisfaction with the wellness destination; **$p < 0.01$; *$p < 0.1$; ns not significant; $R^2 = 0.584$
Source: Created by the authors

Regarding wellness facilities, only F1 (availability of information about the wellness offer) and F7 (Atmosphere) showed relatively balanced potentials to generate satisfaction and dissatisfaction, thus classifying them as hybrid attributes whose performance is linearly related to global satisfaction judgments of wellness tourists. Only F9, i.e. the quality of individual services and/or programs, had a larger potential to generate satisfaction than dissatisfaction, thus classifying it as a satisfier according to the three-factor theory.

At the wellness destination level, D7 (quality of restaurants, cafes and bars) and D11 (informational quality in the destination) had relatively similar dissatisfaction- and satisfaction-generating potentials, whereas only D3 (the atmosphere at the destination) had a positively asymmetrical impact on wellness tourist satisfaction (IAI = 0.51). According to the three-factor theory, the remaining destination attributes were classified as either dissatisfiers or frustrators, except for D9 (recreational opportunities) and D10 (quality of local transportation), which turned out to be insignificant. By far, the largest potential impact on wellness tourist satisfaction was the beauty of nature and scenery (D1), as measured by the RIOGS score (1,423), followed by the feeling of personal safety (D2), the accommodation quality (D6) and cultural tourism offerings (D8).

Discussion

A general observation that can be made is that most attributes have a negative asymmetric impact on the tourist's global satisfaction with the wellness facility and destination, respectively, which signals a generally very high level of expectations among wellness tourists. Previous studies that have investigated potential level effects in the relationship between attribute performance and overall satisfaction mostly revealed a more balanced classification of attributes according to the three-factor theory of customer satisfaction (Mikulić and Prebežac, 2011; Oh et al., 2019). Such high expectation levels within the wellness tourism context, leading to the classification of most attributes as dissatisfiers or even frustrators, could be explained by the inherent hedonic nature of wellness experiences (Forlani et al., 2022), meaning that exceptionally high service levels are required to grant satisfaction, favorable behavioral intentions and revisitation (Sthapit et al., 2023),

Moreover, Mikulić and Prebežac (2008) point out that the absolute potential of, e.g. a satisfier to generate dissatisfaction might be greater than that of an attribute classified as a dissatisfier because of a larger overall impact on global satisfaction ratings, and vice versa. Managerial implications should thus not be solely based on the classification of attributes according to the three-factor theory, but they should also account for the attributes' range of impact on global satisfaction (RIOGS). If taking a look at this measure, rather basic aspects, such as cleanliness (F6), punctuality of appointments (F14), completeness of information about treatments/procedures (F2) or staff politeness (F13), showed the largest overall impact on wellness tourist satisfaction, as indicated by the very high RIOGS scores.

Conclusions, implications and further research

Based on an analysis of impact asymmetry and impact range, the present study performed a classification of wellness facility and wellness destination attributes according to the three-factor theory of customer satisfaction and estimated the potential impact of each attribute on the global satisfaction levels of wellness tourists.

An important theoretical/methodological implication emerging from this study is that it can be regarded as another validation of the three-factor theory of customer satisfaction. Like previous studies have already argued (Mikulić et al., 2015; Pratt et al., 2020), future tourist satisfaction research based on attribute models is strongly advised to consider potential significant level effects and the potential of individual attributes to generate both satisfaction and dissatisfaction, contrary to the much more widespread, traditional approach, which treats relationships between attribute-level performance and global satisfaction judgments

as being strictly linear. This is important because different managerial implications may emerge regarding the service elements to focus on, depending on whether the goal is to avoid the occurrence of strong dissatisfaction, on the one hand, or to generate tourist delight, on the other hand. If not taking a potential asymmetric perspective on the relationship between attribute-level performance and global satisfaction, suboptimal or even misleading recommendations may emerge when taking a strictly linear perspective.

The results also have several important practical implications for wellness facility managers and the management of respective wellness tourist destinations aiming to achieve high tourist satisfaction levels as a critical antecedent to revisit intentions and positive word-of-mouth (Sthapit *et al.*, 2023). The results strongly indicate that operators of wellness tourism facilities, as well as managers of wellness destinations, must not make any compromises in quality levels. While this might appear as a trivial and rather commonly accepted implication and recommendation, the fact that most attributes were classified as dissatisfiers or frustrators according to the three-factor theory signals exceptionally high expectation levels among the wellness tourist segment. Previous classifications from studies set within various service settings usually yield a more balanced classification of attributes according to the three-factor theory (Mikulić and Prebežac, 2011; Oh *et al.*, 2019). Put differently, most of the analyzed attributes had a significantly higher potential to frustrate than to please tourists, especially basic factors such as cleanliness, punctuality or safety, which showed to have the strongest influence on global satisfaction levels. Accordingly, these attributes should not be viewed as sources of potential tourist satisfaction and delight, but rather high performance needs to be granted regarding these service elements to avoid the creation of dissatisfaction. Within this context, only one facility attribute (i.e. quality of individual services and/or programs) showed a positive asymmetric impact on global satisfaction, meaning that facility managers could seek potential to generate delight here by assuring high performance levels.

Regarding wellness destination attributes, in line with previous research (Medina-Muñoz and Medina-Muñoz, 2014), the present study showed that wellness tourists expect destinations to have a preserved and beautiful natural environment, which is the by far most influential destination attribute. Moreover, they prefer rich cultural offerings, a safe environment and high-quality accommodation. However, applying the three-factor theory in the present study provides much more nuanced insight into the mechanisms leading to high satisfaction and dissatisfaction. As for the wellness facilities, the classification of all these three destination attributes into frustrators indicates very high expectations regarding these destination elements among the wellness tourist segment. An important implication for wellness facility operators would thus be to carefully pick the sites/destinations for future development projects to ensure that the chosen destinations meet these requirements to avoid dissatisfaction among their guests once they leave the wellness facility to engage with the wider destination offer.

The present study has several limitations. Because case-based studies, such as the present one that used the case of Croatian wellness destinations and facilities, are inherently biased by the prevalent generating markets and their characteristics and, in particular, expectations and potentially by prevalent performance levels, it is recommended to conduct similar studies in other markets to provide further empirical evidence on the most determinant attributes and classifications according to the three-factor theory. Moreover, future studies may also consider other approaches, such as the Kano questionnaire method, to obtain a classification of wellness tourism attributes according to their potential to generate dissatisfaction, on the one hand, and dissatisfaction, on the other. While a disadvantage is that the technique is not based on actual wellness tourism transactions (i.e. true experiences), its advantage is that it performs classifications based on objective performance levels using a scenario-based analysis approach (Mikulić and Prebežac, 2016).

Author contributions

JM: study conception, research method design, data analysis and interpretation, manuscript preparation, critical revision of the article, final reading and approval of the submitted paper; MŠ: study conception, research method design, final reading and approval of the submitted paper; DK: study conception, research method design, final reading and approval of the submitted paper.

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